

Listing of the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An audio system comprising at least one correction factor, the correction factor selected based on a ~~A method for selecting at least one correction factor for an audio system, the method comprising:~~
 - generating acoustic signals from at least one loudspeaker placed at potential loudspeaker locations;
 - recording transfer functions for the generated acoustic signals at a plurality of listening positions;
 - determining at least one potential correction factor;
 - modifying the transfer functions based on the potential correction factors in order to generate predicted transfer functions;
 - statistically analyzing across at least one frequency of the predicted transfer functions for the plurality of listening positions; and
 - selecting a correction factor based on the statistical analysis.
2. (Currently Amended) The ~~method~~ audio system of claim 1, where the potential correction factor is a non-temporal correction factor.
3. (Currently Amended) The ~~method~~ audio system of claim 2, where the non-temporal correction factor is selected from the group consisting of gain, amplitude, and equalization.
4. (Currently Amended) The ~~method~~ audio system of claim 3, where the equalization is selected from the group consisting of parametric, graphic, paragraphic, shelving, FIR (finite impulse response), and transversal equalization.
5. (Currently Amended) The ~~method~~ audio system of claim 1, where the potential correction factor is a temporal correction factor.

6. (Currently Amended) The ~~method~~ audio system of claim 1, where the statistical analysis indicates efficiency of the predicted transfer functions for the plurality of listening positions.
7. (Currently Amended) The ~~method~~ audio system of claim 6, where efficiency is examined for predetermined frequencies.
8. (Currently Amended) The ~~method~~ audio system of claim 7, where selecting a correction factor based on the statistical analysis comprises selecting a value for the correction factor to increase efficiency of the audio system in the predetermined frequencies.
9. (Currently Amended) The ~~method~~ audio system of claim 8, where the potential correction factor comprises potential volume correction; and
where selecting a value to increase efficiency comprises selecting a value that decreases volume of at least one of the loudspeakers in the audio system.
10. (Currently Amended) The ~~method~~ audio system of claim 1, where the statistical analysis indicates consistency of the predicted transfer functions across the plurality of listening positions.
11. (Currently Amended) The ~~method~~ audio system of claim 1, where the statistical analysis indicates flatness for the predicted transfer functions for the plurality of listening positions.
12. (Original) A machine readable medium having software for causing a computer to execute a method, the machine readable medium comprising:
 - instructions for generating acoustic signals from at least one loudspeaker placed at potential loudspeaker locations;
 - instructions for recording transfer functions for the generated acoustic signals at a plurality of listening positions;
 - instructions for determining at least one potential correction factor;
 - instructions for modifying the transfer functions based on the potential correction factors in order to generate predicted transfer functions;

instructions for statistically analyzing across at least one frequency of the predicted transfer functions for the plurality of listening positions; and

instructions for selecting a correction factor based on the statistical analysis.

13. (Original) The machine readable medium of claim 12, where the statistical analysis indicates efficiency of the predicted transfer functions for the plurality of listening positions.

14. (Original) The machine readable medium of claim 12, where the statistical analysis indicates consistency of the predicted transfer functions across the plurality of listening positions.

15. (Original) The machine readable medium of claim 12, where the statistical analysis indicates flatness for the predicted transfer functions.

16. (Original) The signal-bearing medium of claim 12, further comprising logic for recommending a specific correction factor.

17. (Currently Amended) [[In an]] An audio system comprising at least one loudspeaker, at least one correction factor, and at least one a plurality of listening positions, a method for selecting the at least one correction factor for the audio system selected based on a[[, the]] method comprising:

recording transfer functions at the plurality of listening positions;

determining potential correction factors;

modifying the transfer functions based on the potential correction factors in order to generate predicted transfer functions for each of the plurality of listening positions;

statistically analyzing the predicted transfer functions; and

selecting at least one correction factor based on the statistical analysis.

18. (Currently Amended) The ~~method~~ audio system of claim 17, where the potential correction factor is a non-temporal correction factor.

19. (Currently Amended) The ~~method~~ audio system of claim 18, where the non-temporal correction factor is selected from the group consisting of gain, amplitude, and equalization.
20. (Currently Amended) The ~~method~~ audio system of claim 17, where the potential correction factor is a temporal correction factor.
21. (Currently Amended) The ~~method~~ audio system of claim 17, where the statistical analysis indicates efficiency of the predicted transfer functions.
22. (Currently Amended) The ~~method~~ audio system of claim 21, where efficiency is examined for predetermined frequencies.
23. (Currently Amended) The ~~method~~ audio system of claim 22, where selecting a correction factor based on the statistical analysis comprises selecting a value for the correction factor to increase efficiency of the audio system in the predetermined frequencies.
24. (Currently Amended) The ~~method~~ audio system of claim 23, where the potential correction factor comprises potential volume correction; and
where selecting a value to increase efficiency comprises selecting a value that decreases volume of at least one of the loudspeakers in the audio system.
25. (Currently Amended) The ~~method~~ audio system of claim 17, ~~where recording transfer functions comprises recording transfer functions at a plurality of listening positions; and~~
where the statistical analysis indicates consistency of the predicted transfer functions across the plurality of listening positions.
26. (Currently Amended) The ~~method~~ audio system of claim 17, where the statistical analysis indicates flatness for the predicted transfer functions across the plurality of listening positions.

27. (Currently Amended) A signal-bearing medium having instructions for causing a computer to execute a method, the signal-bearing medium comprising:

logic for recording transfer functions at ~~[[the]]~~ a plurality of listening positions;

logic for determining potential correction factors;

logic for modifying the transfer functions based on the potential correction factors in order to generate predicted transfer functions for each of the plurality of listening positions;

logic for statistically analyzing the predicted transfer functions to determine at least one characteristic of the predicted transfer functions across the plurality of listening positions.

28. (Original) The signal-bearing medium of claim 27, further comprising logic for recommending a specific correction factor.

29. (Currently Amended) A method for selecting at least one correction factor for audio system comprising:

recording transfer functions at ~~at least one~~ a plurality of listening positions;

determining potential correction factors;

determining potential values for at least one parameter in the audio system;

modifying the transfer functions based on the potential values in order to generate predicted transfer functions for each of the plurality of listening positions;

statistically analyzing the predicted transfer functions to determine at least one characteristic of the predicted transfer functions across the plurality of listening positions;

modifying the statistical analysis based on the potential correction factors; and

selecting at least one correction factor based on the modified statistical analysis.

30. (Original) The method of claim 29, where modifying the statistical analysis comprises applying potential equalization factors.

31. (Currently Amended) The method of claim 30, ~~where recording transfer functions comprises recording transfer functions at a plurality of listening positions~~;

where the statistical analysis determines a frequency with a maximum spatial variance for the predicted transfer functions, and

wherein the potential equalization factors are applied at the frequency with the maximum spatial variance for a predicted transfer function.

32. (Original) The method of claim 31, where the potential equalization factors comprise a center frequency at the frequency with the maximum variance, a bandwidth setting, a level setting.

33. (New) The audio system of claim 1, where the audio system has a first loudspeaker and a second loudspeaker; and

where the correction factor selected for first loudspeaker is different from the correction factor selected for the second loudspeaker.

34. (New) The audio system of claim 33, where the first loudspeaker and second loudspeaker, prior to the correction factors, receive the same signal.

35. (New) The audio system of claim 33, where the first loudspeaker and second loudspeaker comprise subwoofers.